

CLAIMS

1. A plasma display panel display device comprising:
a plasma display panel having a plurality of electrodes;
5 a drive circuit that supplies a driving waveform to the electrode;
a power supply circuit that supplies a power to the drive circuit; and
a power control circuit that adjusts an output power
10 which can be supplied to an electrode of a plasma display panel, by controlling a non-operational period of the power supply circuit based on emission state of the plasma display panel.

2. The plasma display panel display device according to claim 1,
15 wherein the power control circuit adjusts an output power based on a ratio between the non-operational period and the operational period of the power supply circuit.

3. The plasma display panel display device according to claim 2,
20 wherein, when the power supply circuit is configured in a switching system, one period including the non-operational period and the operational period of the power supply circuit controlled by the power control circuit is longer than one cycle of the switching operation of the power supply circuit.

4. The plasma display panel display device according to claim 3,
wherein the operation and stop of the power supply circuit by the power control circuit are repeated at a random frequency.

5. The plasma display panel display device according to claim 3,

wherein the operation and stop of the power supply circuit by the power control circuit is repeated at a constant frequency.

5 6. The plasma display panel display device according to claim 5, wherein the frequency for the repetition of operation and stop of the power supply circuit by the power control circuit is not less than an audible frequency.

10 7. The plasma display panel display device according to Claim 6, wherein the frequency for the repetition of operation and stop of the power supply circuit by the power control circuit is synchronized with a driving frequency of the power supply circuit.

15 8. The plasma display panel display device according to Claim 7, wherein the frequency for the repetition of operation and stop of the power supply circuit by the power control circuit is $1/n$ of a driving frequency of the power supply circuit (n is a positive integer).

20 9. The plasma display panel display device according to any one of claims 1 to 8, wherein

the power supply circuit includes a transformer or inductor, a switch to intermittently apply a power supply voltage to the transformer or inductor, a switch driver that drives the switch, and
25 a controller that controls the switch driver, and

the power control circuit comprises a drive stop circuit that stops the switch driver in order to stop the power supply circuit based on emission state of the plasma display panel.

30 10. The plasma display panel display device according to any one

of Claims 1 to 8, wherein the power control circuit adjusts the output power based on video information to be displayed.

11. The plasma display panel display device according to any one
5 of claims 1 to 8, wherein the power control circuit adjusts the output power based on the number of data pulses which are included in an address period.

12. The plasma display panel display device according to any one
10 of claims 1 to 8, wherein the power control circuit adjusts the output power based on the output voltage of a power supply circuit for driving a data pulse.

13. The plasma display panel display device according to any one
15 of Claims 1 to 8, wherein the power control circuit adjusts the output power based on video information to be displayed, which is stored in a frame memory.

14. The plasma display panel display device according to any one
20 of claims 1 to 8, wherein the power supply circuit is configured in a resonance system or a regenerative system.